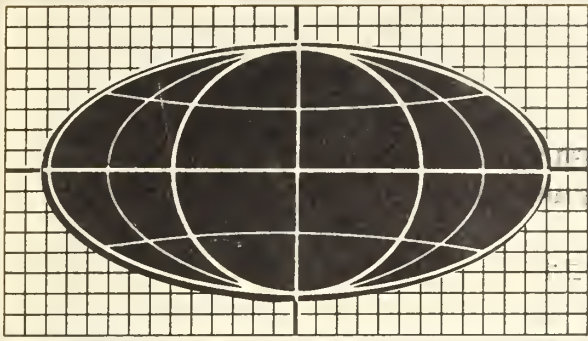

UGANDA'S AGRICULTURAL ECONOMY IN BRIEF

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SUMMARY

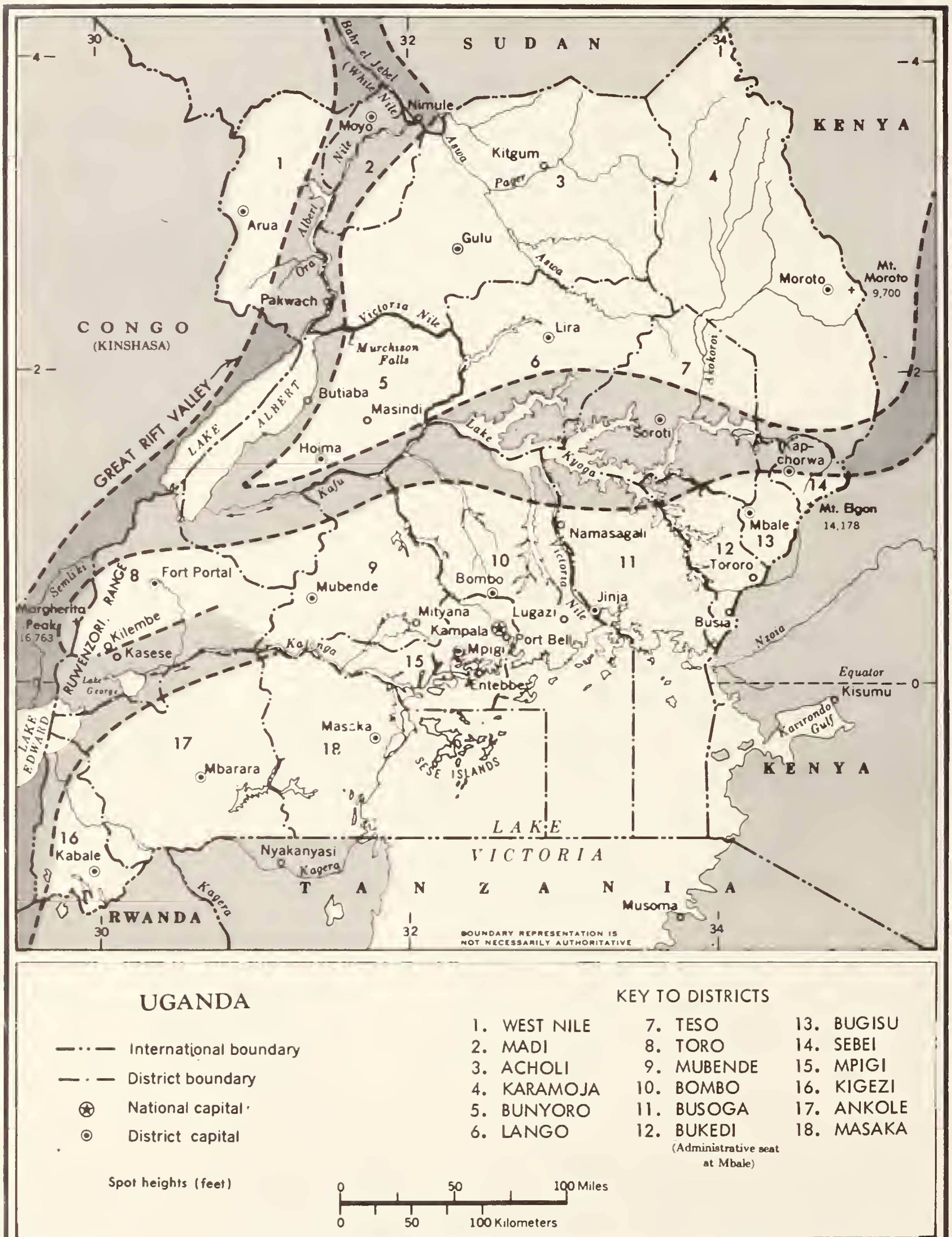
Uganda's major cash crop is coffee, for which the United States is the major customer, importing chiefly Robusta coffee. The second of the major cash crops is cotton. Together they account for approximately 65 percent of Uganda's exports and primarily determine the country's foreign exchange earnings.

Agriculture, mainly subsistence-type farming, supports over 95 percent of the population, which is increasing at a rate of 2.5 percent annually. Uganda, a landlocked country, is largely self-sufficient in agriculture and food needs, and the country has no serious land shortage problems at this time. Agricultural activities account for about 60 percent of the gross domestic product and 80 percent of total exports. In 1966, gross domestic product was $686 million--$89 per capita for an estimated population of 7.7 million.

The major structural weakness of the Ugandan economy is its dependence on the world market prices of coffee and cotton. There is a pressing need for the establishment and development of agro-business enterprises to supply consumer products for the expanding domestic market. It is essential to reduce the drain on foreign exchange earnings by expanding the export base, including primary products and manufactured goods. The multiplier effect of an expanding export base would broaden and diversify the local supporting industries and services.

THE LAND

Uganda is unlike its East African common market associates, Tanzania and Kenya. Its geography is different, its scenery is different, and its climate



U.S. DEPARTMENT OF AGRICULTURE NEG. ERS 5420-67(11) ECONOMIC RESEARCH SERVICE is different. It is located astride the equator in East Africa. It is bounded on the east by Kenya, on the south by Tanzania and Rwanda, on the west by the Republic of the Congo (Kinshasa), and on the north by the Sudan.

The country, with an area of 93,981 square miles, is approximately the size of Oregon. It is a land of lakes--lakes cover about 14,000 square miles--the largest being Lake Victoria, the source of the White Nile. Other important lakes are Lake George, Lake Edward, Lake Kyoga, and Lake Albert. Geographically the country is within the Upper Nile Basin and has only two sizable rivers--the Kagera and the Katonga--which drain into Lake Victoria. The Albert Nile, flowing north out of Lake Albert, and the Victoria Nile, which plunges through a gap 20 feet wide to form the 270-foot high Murchison Falls, provide the country with great potential for hydroelectric power and irrigation.

The snow-capped "Mountains of the Moon," the Ruwenzori Mountains, form a natural geographic border with the Congo in the west and rise to peaks of over 16,000 feet. The highest mountain in the country is Mount Morgherita, 16,795 feet. Mount Elgon, 14,178 feet, is an isolated volcanic peak on the Kenya border. Rich volcanic soils are located in this area. Uganda has typically fertile heavy brown or reddish-brown soils.

Despite its equatorial latitude, Uganda has a pleasant climate over most of the country because of the high altitude. The temperature variation throughout the year is slight, ranging from a mean minimum of 60° F. to a mean maximum of 85° F. July is the coolest month of the year.

Most of Uganda has two rainy seasons during the year--April through May and October through November. The spring rains often bring the heaviest rainfall. The amount of rain varies with the locality but is generally adequate for crop production. The greater part of the country receives from 40 to 60 inches of rain a year. Mount Elgon and the Ruwenzori Mountains have over 60 inches annually. The driest and most primitive section of the country is the Karamoja area in the northeast. In the area immediately north of the equator, Jinja to Masindi, the climate is very favorable for agricultural production. The favorable rainfall and rapid growing cycle, typical of the tropics, make it possible to raise two and sometimes three crops each year on the same land.

In contrast, the length and severity of the dry season substantially limits agricultural production in the north and northeast sections where the land is more suitable for grazing and the people are pastoral herdsmen.

THE PEOPLE

Uganda's population is predominantly African--over 98 percent are of African origin. It is a heterogeneous mixture of three main groups--Bantu, Nilotic, and Nilo-Hamitic. There are approximately 60,000 Asians, mostly Indians and Pakistanis, and 8,800 Europeans in Uganda, plus small numbers belonging to other ethnic groups. Typically, Europeans are administrators, teachers, and missionaries; the Asians are traders and businessmen; and the Africans are subsistence farmers and farm laborers on company-owned plantations. While English is the official language, Swahili is the commercial language of the country.

An estimated 2 million of the population are Christians, 2 million are Muslims, and the remaining 3.7 million are adherents of local religions.

The population density is about 80 persons per square mile for the country as a whole, but it varies considerably between regions. There are only about 16 persons per square mile in the north and northeast. Although land shortage is no problem for the country as a whole, the most densely populated areas are beginning to feel population pressure. Traditional attachment to the land, combined with the rigidity of tribal boundaries, retards local migration and tends to prevent a more even distribution and utilization of the land. Large areas of apparently arable land in the hinterland are not being used. In the agricultural sector, men fell trees, clear the land, harvest coffee and tea, build thatched huts, make pombe (beer), and hunt and fish. Women and children prepare the fields for crops, plant seed, and cultivate, weed, and harvest crops. Over 90 percent of the population is in the agricultural sector. The number of paid workers on company-owned plantations is about 50,000. About 215,000 Africans work in the industrial sector.

AGRICULTURAL STRUCTURE

The average size farm (shamba) operated by Ugandans of African origin has about 5 to 6 acres under cultivation; however, farms vary greatly in size according to the land use. An important factor determining farm size is the amount of land a family can cultivate with crude hand tools--usually a hoe and a machete. Most farmers grow subsistence crops. Cotton, coffee, plantains, and bananas are the important cash crops. Shambas are too small to be economic units, or to permit good agricultural practices. Because of the generally low level of education--about 90 percent of the population is illiterate--most farmers resist changes and seem content with the status quo. In the northern Masindi area, community farm projects are being developed where large acreages in communal plots are planted and worked collectively. The total area farmed under community farm projects was approximately 18,000 acres in 1966. Commercial agriculture in Uganda is based mainly on leasehold and freehold arrangements. These commercial plantations are devoted mainly to sugar, coffee, and tea.

The marked variations in Uganda's physical resources, the various customs of its many different tribes, and the tsetse fly infestation have resulted in a heterogeneous land use pattern. During the last 3 years (1965-67) the land area under cultivation has increased substantially. The expansion of crop production in recent years has resulted almost entirely from cultivation of new lands. Large areas in the arid Karamoja region are occupied by tribes like the Masai who practice nomadic pastoralism with limited crop production.

It is estimated that 10 million acres, 21 percent of the total land area, were used for agriculture in 1967 (table 1). About 6.6 million acres were used for annual and perennial crops, tree crops (coffee, tea, and bananas), temporary meadows, and fallow in rotation. Approximately 1 percent, 500,000 acres, of the total land area was being used for non-African agriculture--large-scale commercial farms owned and operated by Europeans and Asians. The remaining 79 percent of the land area was not used for agriculture, except for some nomadic

Table 1.--Uganda: Land use 1967

Use	Area	Percent of total
	Million acres	Percent
Agricultural land:		
Cropland 1/	6.6	13.8
Permanent unwooded grassland	3.4	7.1
Total	10.0	20.9
Nonagricultural land:		
Forest reserves	4.0	8.4
Game reserves	3.8	7.9
Other land	30.8	62.8
Total	38.6	79.1
Total area	48.6	100.0

1/ Includes land in field and tree crops (coffee, tea, plantains, and bananas), temporary meadows, and fallow.

grazing of cattle on wooded grassland. This nonagricultural area included roughly 7.8 million acres, or 16 percent of the total land area, which was reserved by the Government for forests and game reserves.

FARM TECHNOLOGY

Standard farm tools used in cultivating and harvesting crops in Uganda are the hoe and the machete. There is limited use of oxen, mules, horses, and donkeys. Weeding is done with a hoe, spade, or rake.

Farm mechanization, such as use of tractors, plows, mechanical cultivators, and harvesters, is limited to the large-scale commercial plantations that are scattered over parts of Uganda. Sugarcane, mainly in the Jinja area, is the most mechanized crop.

Clearing new land for agriculture is a major task requiring cutting and burning of the miombo forest and elephant grass to prepare the land for plowing. Tractors and plows are used extensively in clearing plantation land. The number of tractors imported in 1965 was 202.

Approximately 10,000 tons of chemical fertilizers are imported annually, mainly for use on sugarcane, coffee, and tea plantations, and on Government research projects. Little or no commercial fertilizer or manure, insecticides, or pesticides are used by African subsistence farmers.

The Uganda Government and the Cotton Research Corporation financed by Great Britain are engaged in a continuing program of selecting and breeding cotton varieties that are suitable for Uganda. They were the developers of several of the new cotton varieties now grown in Africa. The Government also operates two research stations which conduct work on the selection and testing of varieties of corn, peanuts, cassava, beans, and other crops.

Small pilot irrigation projects are being financed by the Uganda Government to ascertain the value of irrigation in increasing agricultural productivity, primarily in the Jinja area. During 1966, irrigation was utilized only by some of the large sugarcane, coffee, and tea plantations, mainly in the Jinja area. In parts of Uganda, irrigation appears to have limited application because rainfall distribution is adequate and land suitable for agricultural productivity is plentiful.

The Lugazi sugarcane plantation and factory--one of the largest in Uganda--has 25,000 acres of sugarcane; 30 percent of this sugarcane is grown under swamp conditions, 40 percent on undulated areas, and 30 percent on areas with flat topography. A sprinkler irrigation system is in operation on about 1,100 acres. The average yield is about 45 to 50 tons of sugarcane per acre. This plantation also has 2,500 acres of tea and two tea processing factories. There were 60 acres in 1966 under irrigation on tea leaf production. The plantation had 1,300 acres of Robusta coffee, 70 acres of Arabica coffee, and 70 acres of cocoa under production during 1966.

Agricultural extension work is limited in Uganda but is being improved with the help of the U.S. Agency for International Development under its technical assistance program.

AGRICULTURAL PRODUCTION

Uganda has a two-crop economy. Coffee and cotton are the major crops, and occupy a dominant position in the country's trade and economy. In 1966, Uganda was the world's sixth largest exporter of coffee (after Brazil, Colombia, Angola, Mexico, and the Ivory Coast). Coffee production during the crop year 1964/65 was 2.4 million bags; in 1965/66 it was 2.6 million; and in 1966/67, 2.4 million. Uganda's 1967/68 coffee production is estimated at 2.5 million bags (60 kilograms per bag).

In 1966, Uganda was the fourth largest producer of cotton in Africa after Egypt (2 million bales), Sudan (890,000 bales), and Tanzania (360,000 bales). Uganda's cotton production in 1966 was 335,000 bales (400-pound bales). Adverse weather caused the 1966 crop to drop over 35,000 bales below the 1965 crop, which was 370,000 bales. The 1967 crop is estimated at 365,000 bales. Cotton has been grown in Uganda for over half a century and has long been a major export crop. The yield per acre for lint cotton averages 80 pounds--the lowest in Africa--compared with 450 to 500 pounds per acre in the United States. This is due mainly to failure of farmers to adopt improved cultural practices. Practically all cotton in Uganda is grown on the thousands of small African farms.

Uganda also produces and exports moderate quantities of tea, sugar, cottonseed cake, hides and skins, and vegetable oils. Table 2 shows the production of crops in Uganda from 1960 to 1967.

Table 2.--Uganda: Production of principal agricultural crops, average 1957-59, annual 1960-1967

Commodity	Average 1957-59	1960	1961	1962	1963	1964	1965	1966	1967 1/
	1,000 metric tons								
Corn	178	254	279	305	318	305	305	320	310
Sorghum and millet	590	620	650	675	700	700	700	700	700
Beans and peas	113	101	106	111	120	124	128	128	130
Cassava	101	105	108	112	115	120	120	120	120
Sweetpotatoes	980	975	955	955	975	975	975	975	980
Sugar (raw)	89	95	103	112	132	116	134	148	150
Cottonseed 2/ 3/	143	143	70	138	146	140	142	127	140
Castor beans	2	2	2	2	3	3	3	3	3
Peanuts (unshelled)	172	178	180	163	163	159	159	163	163
Soybeans	1	1	1	1	1	1	1	1	1
Sesame seed	31	34	34	34	35	35	35	35	35
Cotton lint	68	67	33	65	69	66	67	60	66
Tobacco	3	2	2	2	2	3	3	3	5
Coffee	98	114	117	177	174	141	156	141	153
Tea	4	5	5	6	6	8	8	11	10
Vegetables and herbs	63	60	70	70	70	70	70	70	70
Plantains and bananas	2,908	2,950	3,180	3,180	3,200	3,250	3,250	3,260	3,270
Other fruits (fresh)	22	27	30	30	30	30	30	30	35
Meat	66	66	70	75	80	80	80	80	85
Milk	258	244	250	250	255	260	260	260	265
Hides and skins	4	5	5	5	5	5	5	5	5

1/ Estimated. 2/ Harvest extends into the following year. 3/ 1 bale of unginned seed cotton contains about one-third lint and two-thirds seed.

Food crops for domestic use include plantains (cooking bananas), sorghum and millet, sweetpotatoes, beans and peas, and peanuts. Consumption of vegetable oilseeds (peanut and sesame) is substantial.

The development and effective utilization of livestock are of increasing importance to Uganda as a means of diversifying agricultural production, providing work animals for plowing, and adding protein to the diet of the people. The livestock sector has substantial potential but is faced with the problem of eliminating livestock diseases--East Coast fever, rinderpest, and the disease carried by the tsetse fly. These diseases result in a substantial loss of cattle every year. During 1965 and 1966, beef and milk consumption in Uganda increased much faster than production.

In 1966 there were 3.7 million head of cattle, 2.1 million goats, and 850,000 sheep in Uganda (table 3). About 70 percent of the cattle are of the short-horned Zebu type and the remainder consist of long-horned Ankole. In the Bombo District there is growing importance of Jersey and Guernsey dairy cattle. Approximately 1,500 head of these and other exotic dairy stock are now kept on plantations and Government-operated farms.

In the traditional society of Uganda, livestock, especially cattle, are commonly valued for other than economic reasons. Herds are built up and maintained by pastoral tribes as a sign of prestige and wealth and as a bride price for brothers and sons. However, livestock contribute much less to the income of the country than their numbers would indicate.

Table 3.--Uganda: Livestock numbers, 1960-66

Year	Cattle	Goats	Sheep
1960	3,618,000	2,592,000	865,000
1961	3,383,000	2,533,000	832,000
1962	3,465,000	2,340,000	760,000
1963	3,464,000	1,991,000	861,000
1964	3,531,000	2,021,000	760,000
1965	3,627,000	1,998,000	791,000
1966	3,700,000	2,100,000	850,000

Source: Statistical Abstract of Uganda, 1960-1966.

Families of pastoral tribes also want large herds for their own food supplies, and an excess of immediate needs to exchange for grain with the cultivating communities and to have as a reserve against drought.

CONSUMPTION OF AGRICULTURAL PRODUCTS

The daily caloric intake in Uganda is approximately 2,400 calories. The basic diet consists of plantains, millet, corn, sweetpotatoes, and cassava. The typical African diet is high in starchy foods and adequate in carbohydrates, but deficient in protein and vitamins.

Meat and fat consumption is greater in the urban areas than in the pastoral and farming areas. Wild game and animals supplement the diet in the latter two areas. Cassava is grown primarily as a famine food reserve and the amount harvested varies with the adequacy of other food supplies. Wheat and corn are imported for food to supplement local production.

AGRICULTURAL EXPORTS AND IMPORTS

Agricultural products constitute a major segment of Uganda's total export trade, accounting for 80 percent in 1965 and 82 percent in 1966 (table 4). During 1966, coffee and cotton represented 65 percent of Uganda's total export earnings. The United States is Uganda's best customer, taking about 25 percent of the total value of exports in 1966. The United States purchased about 40 percent of Uganda's coffee exports in 1966. Coffee exports to the United States are of prime importance to Uganda's economy because they bring needed American dollars into the country. Agricultural exports to Kenya and Tanzania, mainly sugar, vegetable oils, and tobacco, represent about 15 percent of the total value of annual exports. Other leading customers for Uganda's exports in 1966 were the United Kingdom and West Germany.

Uganda's industrial sector is just beginning to develop, hence imports consist mainly of manufactured products. The total value of imports in 1966

Table 4.--Uganda: Exports and imports of agricultural commodities, by leading countries of destination and origin, 1965 and 1966

Exports	Quantity 1965	Quantity 1966	Value 1965	Value 1966	Share of total value of all exports 1965	Share of total value of all exports 1966
	1,000 metric tons		1,000 dollars		Percent	
Coffee	140.9	167.1	85,181	97,409	42.0	45.6
United States	58.7	54.6	37,983	37,934		
United Kingdom	33.1	31.3	20,377	21,464		
Canada	4.9	7.6	3,590	4,608		
Australia	4.3	5.1	2,351	3,406		
Poland	2.1	11.3	769	3,134		
Cotton	69.1	69.8	46,933	42,965	23.0	20.1
India	11.7	6.6	8,713	5,042		
West Germany	5.4	8.3	3,752	4,960		
Hong Kong	6.5	8.5	3,623	4,462		
Netherlands	1.6	3.6	1,109	2,294		
Tea	6.9	9.0	6,781	8,917	3.3	4.2
United Kingdom	3.3	5.1	3,422	5,238		
Canada	.6	.6	589	650		
United States	.6	.6	530	570		
Sudan	.5	.4	360	348		
Sugar	19.5	4.9	2,486	662	1.2	.3
Kenya	19.0	4.5	2,337	616		
Cottonseed cake	79.1	71.8	5,398	5,467	2.7	2.6
United Kingdom	43.7	30.4	3,209	2,351		
Hides and skins	4.2	3.9	3,523	4,980	1.7	2.3
Spain	1.4	1.5	770	1,356		
Italy	1.0	.8	832	1,223		
United Kingdom	.7	.5	602	662		
Vegetable oils	8.9	5.6	3,291	2,081	1.6	1.0
Kenya	7.5	5.1	2,751	1,899		
Tanzania	.5	.4	204	144		
Tobacco, unmfd.	3.0	2.4	3,064	1,939	1.5	.9
Kenya	1.9	1.3	2,264	1,138		
Oilseeds and nuts	3.6	13.7	564	1,975	.3	.9
United Kingdom	.8	5.7	102	875		
Israel	.6	1/	107	9		
Other agricultural			5,246	8,967	2.7	4.1
Total agricultural			162,467	175,362	80.1	82.0
Nonagricultural exports			40,366	38,482	19.9	18.0
Total exports			202,833	213,844	100.0	100.0

Imports	Quantity 1965	Quantity 1966	Value 1965	Value 1966	Share of total value of all imports 1965	Share of total value of all imports 1966
	1,000 metric tons		1,000 dollars		Percent	
Cereals and prep.	46.6	49.3	5,477	5,535	3.4	3.3
Kenya	30.7	28.5	2,913	2,693		
Pakistan	2.5	2.2	525	501		
Milk and cream	21.9	37.2	3,008	5,589	1.9	3.3
Kenya	20.4	35.4	2,361	4,772		
Netherlands	.7	.8	240	228		
United States Government	.2	.2	64	99		
Vegetable oils	3.1	4.4	1,081	1,280	.7	.8
Tanzania	2.3	1.1	787	341		
Kenya	.8	.7	294	222		
Butter	1.0	1.5	1,103	1,613	.7	1.0
Kenya	.9	1.4	1,048	1,553		
Beer (1,000 U.S. gallons)	277.4	170.4	302	242	.2	.1
Kenya	190.0	107.8	179	159		
Vegetables, fresh and dried	5.8	4.1	833	650	.5	.4
Kenya	.6	1.2	259	142		
Tanzania	.7	2.2	355	210		
Meat and prep.	.8	.1	652	626	.4	.4
Kenya	.7	1/	586	544		
Sugar and honey	3.8	19.3	463	1,653	.3	1.0
Kenya	2.7	1.1	334	155		
Yugoslavia	--	12.1	--	944		
Tobacco, unmfd.	.9	.2	811	298	.5	.2
Kenya	.7	.2	656	215		
Other agricultural			5,611	4,777	3.4	2.6
Total agricultural			19,341	22,263	12.0	13.1
Nonagricultural imports			141,812	147,500	88.0	86.9
Total imports			161,153	169,763	100.0	100.0

1/ Less than 50 metric tons.

was $170 million. Agricultural products accounted for $22 million, 13 percent of the total. Wheat and grains, including flour, accounted for almost 3.3 percent.

The major share of agricultural imports came from Kenya and Tanzania. Only about 2 percent of Uganda's annual imports come from the United States. Agricultural imports from the United States probably could be increased substantially, since Uganda has a substantial import need for such products as wheat, dried milk, canned fruits, and vegetables.

Uganda has had a very favorable balance of trade--an excess of exports over imports during the past 10 years--and 1966 was a very good year, with exports exceeding imports by over $44 million.

AGRICULTURAL AND TRADE POLICY 1/

The long-term agricultural policy of Uganda is aimed at crop diversification, increased production of cash crops by Africans, expansion of marketing facilities, improvement in quality of cash crops and African owned livestock, industrial expansion, and increased capital investment in training facilities and extension services.

Uganda's foreign agricultural policy is directed toward maintaining its position in the world market for coffee and cotton. It is of prime concern that these two export crops earn the foreign exchange necessary to maintain the economy of the country.

The Government's second 5-year development plan, for economic development between 1966 and 1971, will require estimated Government expenditures of $644 million. The plan envisages expansion of employment opportunities, the promotion of a viable industrialization program, and the expansion of agricultural output.

The pattern of crop development under the 5-year plan calls for an increase in tea and sugar acreages. Acreage devoted to coffee will be reduced as part of the country's crop diversification plan and emphasis will be on improving the quality of the coffee produced. It is also anticipated that substantial increases in the output of cotton, tea, and sugar will be made during this period. Acreage in cotton is to be maintained at 1966 levels with total output increased by improving yields.

Uganda's long-term goal for livestock production is to improve the quality of livestock, and to stabilize the cattle population at 4 to 5 million head, with a substantial increase over present average weight. In the past, the contribution of livestock production to the country's economy has been small

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1/ Material in this section has been adapted from an article by the author entitled "Kenya, Uganda, and Tanzania Establish 'East African Community', published in the December 4, 1967, issue of the Foreign Agriculture Including Foreign Crops and Markets, a weekly magazine of the U.S. Department of Agriculture, Foreign Agricultural Service.

in comparison with its potential. This situation can be changed by disease control, range management, construction of feedlots, increased use of cattle fodder, and large-scale ranching. The 5-year development plan is designed to attack this problem on a broad front.

Stress is being placed on education, production incentive programs, and practical use of research findings in crop production and livestock farming. Makerere University, in Kampala, has schools of agriculture and veterinary medicine. The Cotton Research Corporation, in cooperation with the Uganda Government, continues to play a major role in cotton research and development.

Credit has been extended to African farmers through cooperatives, savings banks, and newly-established agricultural credit facilities. Cooperatives are used throughout the country as an effective vehicle for the marketing and processing of cotton and coffee. There are at present 1,400 cooperative societies and 340 credit societies in Uganda.

A significant step toward regional integration of trade was taken on December 1, 1967, when a new East African Community (EAC) was formed by Kenya, Uganda, and Tanzania, replacing the East African Common Market (EACM). The EACM was the world's oldest and least known common market, a de facto customs union that had developed gradually over a period of 30 years.

The aims of the East African Community are (1) establishment and maintenance of revised common customs and excise tariffs, (2) modification of tariffs and other restrictions on regional trade, (3) introduction of a common agricultural policy, (4) establishment of an East African Development Bank, (5) continued operation of common services such as the East African airway, port, railroad, postal, and telecommunication facilities, (6) maintenance of individual country currencies on a sound basis, (7) coordination of economic planning, and (8) continued coordination of transport policy and operations.

Cooperation on a common tariff is legally more binding on the three countries under the EAC than it was under the EACM. They are pledged to maintain a common customs tariff on imports into East Africa, and conditions guaranteeing the freedom of transit of goods across national boundaries within East Africa are established. Except for the newly introduced transfer tax system, there will be no internal tariffs and no quantitative import restrictions except on items on a limited special list.

The main purpose of the new East African Development Bank (EADB) now being established is to accelerate industrial development, primarily in Uganda and Tanzania. Kenya now dominates East African industry. The EADB will be headquartered in Kampala, Uganda. Of its authorized capital of $56 million, $16.8 million will be subscribed by Uganda, Kenya, and Tanzania and the remainder by institutions or organizations that wish to be members of the bank. The EADB will be required to make 38.75 percent of its investments in Uganda, 38.75 percent in Tanzania, and 22.5 percent in Kenya.

Uganda, Kenya, and Tanzania occupy a strategic position in Africa south of the Sahara. They have access to the Indian Ocean and to the markets of the world. Compared with the European Economic Community, EAC's land area is half again as large, its population only about one-eighth as numerous.

Kenya and Tanzania, like Uganda, export tropical agricultural products and import foodstuffs, other consumer goods, machinery, and chemicals. In 1966 the total volume of trade of EAC countries amounted to $1.2 billion--$569 million in exports and $615 million in imports. Trade is conducted essentially on a nondiscriminating basis. Duties on imports may be specific cr ad valorem, or a combination of these two types of duties may be used, the rate yielding the highest revenue being applied. Many items essential for education, health, or economic development are duty free.

Some commodities may be imported into the EAC under an open general license or a specific import license valid from date of issue until the end of the calendar year. Additional internal taxes are levied on such import items as alcoholic beverages, sugar, and tobacco.

In 1966 the value of the cash crop exports of the EAC countries to the United States was $84.7 million. U.S. exports to these countries were valued at $38 million, of which $22.7 million represented agricultural products.

GENERAL ECONOMIC SITUATION

The outlook appears favorable for a moderate expansion of Uganda's economy provided the political climate remains stable.

With the creation of the EAC, an adequate market for Uganda's manufactured goods is available, and the manufacturing sector may emerge as the most important stimulus to economic growth in the 1970's. However, limiting factors are inadequate capital investment, paucity of skilled labor, and a limited range of local raw materials for processing.

The country's economic infrastructure is adequate to meet the present transportation and marketing demands. Uganda has about 700 miles of railroad. East African Railways and Harbors maintains a single-track, meter-gauge railway connecting Uganda with Kenya's major seaport, Mombasa. This railway to the coast is of vital importance to the economic life of Uganda; it branches at Tororo in Eastern Uganda, with one branch extending to the west through Jinja and Kampala to Kasese, and the other branch following a northwesterly route through Mbale, Soroti, Lira, and Gulu, and terminating at Pakwach on the Nile.

Uganda has over 750 miles of bituminous-surfaced roads, and over 9,100 miles of all-weather lateritic gravel roads. It has the largest paved road system in East Africa--over 390 miles from Mbarara in the Western Region to Soroti in the Northern Region. There is, however, a great need to build more farm-to-market roads for the future development of the agricultural sector of the economy.

Entebbe, Uganda's major international airport, is a regular stop for planes of overseas airlines enroute to various cities in Africa, Europe, and the United States.

The country has some excellent lakes which serve as waterways, but rivers are unsuitable for through navigation, including the Nile, which is navigable only on relatively short sections separated by cataracts and many shallows. Export and import traffic by inland water transport has the disadvantage of the number of transhipments that are often necessary. The cost of transhipment, including damage loss, is substantial. Lake Victoria is an important artery of transport between cities on the lake, and traffic on the lake has increased with the introduction of the freight car ferry (fishyback) service.

Uganda has one of the greatest potentials for hydroelectric power development in East Africa. Approximately one-half of the Nile River's descent from Lake Victoria to the Mediterranean occurs within Uganda. The Nile's descent gives the country a hydroelectric power potential estimated at 2 million kilowatts.

The Owens Falls hydroelectric plant near Jinja, operated by the Uganda Electricity Board, has an installed capacity of 108,000 kilowatts and a maximum capacity of 120,000 kilowatts. This plant supplies over 95 percent of Uganda's electrical needs, including power for the Kampala smelting plant, which processes ores transported from the copper-cobalt mine in southwestern Uganda at Kilembe near the Congo border. Also, power from Owens Falls has made possible the development of a cement industry, the expansion and integration of a cereal and feed milling industry, and expansion of the brewing industry. Power is transmitted to meet needs in Nairobi, Kenya over a 300-mile powerline. The potentialities for hydroelectric power development in Uganda have been explored in detail by the World Bank, which has lent funds in recent years for some expansion of power lines and new installations in outlying parts of northern Uganda.

The industrial sector of the economy is relatively small and is directly related to the processing of agricultural products. There are coffee and cotton processing plants and also sugar, tobacco, tea, cigarette, and oilseed factories. Some consumer goods--shirts, footwear, beer, soft drinks, matches, and biscuits--are produced for both the domestic and East African market.

The Nyanza Cotton Textile Mill, built in 1958, is the only large-scale cotton textile mill in East Africa. It uses 3,500 bales of cotton a month of 1-1/8 inch to 1-1/4 inch staple and produces 45 million yards of cotton cloth a year, including fabrics of 33 different colors, for the East African cotton textile market. Even operating at full capacity the mill is not able to meet the East African demand for cotton textiles. The carryover of stock is normally only 10 days of production. The mill hires 3,500 African men who work three 8-hour shifts, 6 days a week year round. The average wage is $49 per month.

The low purchasing power of the population imposes a limit on the domestic demand for the products of secondary industries. The landlocked situation of the country and the great distance from the Indian Ocean are geographical factors that have handicapped Uganda in competing for world markets. Uganda's remoteness provides some element of protection against imported commodities--particularly those of large volume and relatively low unit value.

PROBLEMS FACING AGRICULTURAL ECONOMY

Problems facing the agricultural economy of Uganda center around (1) development of a crop diversification program and experimentation work with new crops such as cocoa, vanilla, tobacco, and soybeans; (2) development of a farm-to-market road program in the interior of the country to bring farm products to the local villages and cities; (3) a livestock and dairy program based on improved breeds, disease control, and improved quality of stock; (4) the development of an agricultural extension program for subsistence farmers to improve subsistence agriculture and livestock farming; and (5) finding trained personnel to fill the vacancies left by the departure of European personnel who have handled administrative and technical problems in the various ministries and in the agricultural districts in the hinterland of Uganda.

It is anticipated that Uganda will devote considerable attention to obtaining necessary financial assistance from overseas sources to bring about needed changes in agriculture and industry.

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